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10/597,161

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Evipides Drakos

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EXAMINER

YOUSSEF, ADEL Y

ART UNIT

PAPER NUMBER

2618

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/597,161 | Applicant(s) DRAKOS, EVRIPIDES | |
| | Examiner ADEL YOUSSEF | Art Unit 2618 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/12/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3- 19, 21, 22, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharon et al (Patent -No: 6704543) in view of Barrett et al. (Patent No: 6965755).

Examiner Notes

3. Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner

Regarding Claim 1, Sharon et al. teach method of configuring a multi-beam satellite to enable remote monitoring of its transmissions (paragraph 19, lines 5-

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8, paragraph 63, figures 4, 10) wherein the satellite transmits a signal in a first beam to a user terminal for receiving the signal (paragraph 57, figure 7), the method comprising configuring the satellite to transmit a copy of the signal in a second beam selected (paragraph 59, figure 8) except for a remote monitoring station for monitoring the copy. However Barrett teach a remote monitoring station for monitoring the copy (column 2, lines 32-55, column 3, lines 10-18, lines 43-47, column 4, lines 5-11, see figures 1-3). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon to include monitoring station for monitoring the copy as taught by Barrett in order to control signals thereby improvement high quality of signal.

Regarding Claim 3, Sharon et al further teach a method of configuring a multi-beam satellite (paragraphs 4, 5, 9, figures 1, 2 and 3) to enable remote monitoring of its transmissions (paragraphs 17, 20), wherein the satellite transmits a signal in a first beam (paragraph 57, figure 7), the method comprising configuring the satellite to transmit a copy of the signal in a second beam (paragraph 59, figure 8) at a substantially lower gain than the transmission of the signal (paragraphs 50, 83, figures 5, 17).

Regarding Claim 4, Sharon et al further teach the method of claim 3, wherein the signal and the copy are transmitted at substantially the same frequency (paragraph 86, figure 19).

Regarding Claim 5, Sharon et al further teach The method of claim 1, wherein the signal is transmitted at a first frequency and the copy is transmitted at a second frequency different from the first frequency (paragraph 18, see figure 2).

Regarding Claim 6, Sharon et al teach the method of claim 5, wherein the copy of the signal and the copy of the further signal are transmitted in a channel reserved except for monitoring by the remote monitoring station. However Barrett teach a remote monitoring station for (column 2, lines 32-55, column 3, lines 10-18, lines 43-47, column 4, lines 5-11, see figures 1-3). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon to include monitoring station for monitoring the copy as taught by Barrett in order to control signals thereby improvement high quality of signal.

Regarding Claim 7, Sharon et al further teach the method of claim 1, wherein a copy of the signal is transmitted in a plurality of different beams, including said second beam (paragraphs 7, 14, 16, and 18).

Regarding Claim 8, Sharon et al teach the method of claim 7, wherein the plurality of beams are selected so as each to contain except for a remote monitoring station for monitoring the copy. However Barrett teach a remote monitoring station for (column 2, lines 32-55, column 3, lines 10-18, lines 43-47,

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column 4, lines 5-11, see figures 1-3). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon to include monitoring station for monitoring the copy as taught by Barrett in order to control signals thereby improvement high quality of signal.

Regarding Claim 9, Sharon et al further teach the method of claim 1, wherein the satellite is periodically reconfigured so as to transmit a copy of a different said signal in said second beam (paragraph 57, 59, see figures 7,8).

Regarding Claim 11, Sharon et al further teach the method of claim 1, wherein the signal contains user data addressed to the user terminal (paragraphs 17, 18).

Regarding Claim 12, Sharon et al further teach the method of claim 1, wherein the step of configuring comprises transmitting. a configuration command directly or indirectly to the satellite (paragraphs 19, 61, 71, see figures 1-3, and 17).

Regarding Claim 13, Sharon et al teach The method of claim 1, further including transmitting directly or indirectly to the remote monitoring station channel allocation data identifying an allocation of one or more user channels (paragraphs 22, 65, 72, 77 figures 11, 13 and 15) except for within the signal such that the remote monitoring station monitors the one or more user channels. However Barrett teach a remote monitoring station (column 2, lines 32-55, column 3, lines 10-18, lines 43-47, column 4, lines 5-11, see figures 1-

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3).Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon to include monitoring station for monitoring the copy as taught by Barrett in order to control signals thereby improvement high quality of signal.

Regarding Claim 14, Sharon et al teach a method of configuring a multi-beam satellite to enable remote monitoring of its transmissions, wherein the satellite transmits a plurality of signals in a respective plurality of beams (paragraph 19, 49, figure 4), the method comprising configuring the satellite to transmit a copy of a selected one of the plurality of signals in a beam (paragraphs 49, 61) except for monitoring by a remote monitoring station, wherein the satellite is periodically reconfigured to select different ones of said plurality of signals for transmitting a copy thereof in said beam. However Barrett teach monitoring by a remote monitoring station, wherein the satellite is periodically reconfigured to select different ones of said plurality of signals for transmitting a copy thereof in said beam (column 2, lines 32-55, column 3, lines 10-18, lines 43-47, column 4, lines 5-11, see figures 1-3).Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon to include plurality of signals for transmitting a copy thereof in said beam as taught by Barrett in order to control signals thereby improvement high quality of signal.

Regarding Claim 15, Sharon et al teach the method of claim 14, wherein the satellite is periodically reconfigured so that each of except for the plurality of

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signals is monitored sequentially. However Barrett teach the plurality of signals is monitored sequentially (column 3, lines 5-18, lines 23- 31, column 4, lines 6-10, see figures 1-3).Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon to include the plurality of signals is monitored sequentially as taught by Barrett in order to control signals thereby improvement high quality of signal.

Regarding Claim 16, Sharon et al teach a method of monitoring a transmission of a signal by a multi-beam satellite in a first beam, the method comprising receiving a copy of the signal in a second beam of the satellite and except for monitoring the copy of the signal. However Barrett teach a remote monitoring the copy of the signal (column 3, lines 42-47, column 4, lines 1-11, see figures 1-3).Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon to include monitoring station for monitoring the copy as taught by Barrett in order to strength measurement of the signal thereby improvement high quality of signal.

Regarding Claim 17, Sharon et al further teach the method of claim 16, wherein the copy of the signal is received at a different frequency from that of the signal (paragraph 18, see figures 1, 2).

Regarding Claim 18, Sharon et al further teach the method of claim 17, wherein the copy of the signal is received in a channel reserved for monitoring

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(paragraphs 62, 74, 78).

Regarding Claim 19, Sharon et al further teach the method of claim 16, wherein the copy of the signal is received at the same frequency as that of the signal, and the second beam is non-adjacent to the first beam (paragraphs 48, 54, see figures 7, 8, 9, 10 and 17).

Regarding Claim 21, Sharon et al further teach the method of claim 16 to 20, wherein the signal contains user data addressed to the user terminal (paragraph 18).

Regarding Claim 22, Sharon et al teach The method of claims 16 to 21, further including receiving channel allocation data identifying an allocation of one or more user channels within the signal (paragraphs 22, 65, 72, 77 figures 11, 13 and 15), and except for monitoring the one or more user channels. However Barrett teach a remote monitoring station (column 2, lines 32-55, column 3, lines 10-18, lines 43-47, column 4, lines 5-11, see figures 1-3). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon to include monitoring station for monitoring the copy as taught by Barrett in order to control signals thereby improvement high quality of signal.

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Regarding claim 27, Sharon further teach A method substantially as herein described with reference to the15 accompanying drawings (paragraph 24).

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sharon et al (Patent -No: 6704543) and Barrett et al. (Patent No: 6965755) in view of Armbruster et al. (Patent -No: 5710971).

Regarding Claim 10, Sharon and Barrett et al. teach the method of claim 1, wherein the satellite is a repeater satellite configurable to convert a feeder link signal, except for transmitted from a terrestrial gateway to the satellite, to said signal and said copy of the signal. However Armbruster teach transmitted from a terrestrial gateway to the satellite, to said signal and said copy of the signal (column 4, lines 9-15) .Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon and Barrett to include a terrestrial gateway as taught by Armbruster in order to transceiver directly communication to the satellite thereby improve more customer service.

5. Claims 2, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharon et al (Patent -No: 6704543) and Barrett et al. (Patent No: 6965755) in view of Jacomb-Hood et al. (PGUB -No: 2003/0052819).

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Regarding Claim 2, Sharon and Barrett et al. teach the method of claim 1, except for wherein the copy is transmitted at substantially lower gain than the signal. However Jacomb-Hood teach the copy is transmitted at substantially lower gain than the signal (paragraph 42, 57, 68, 69). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon and Barrett to include the copy is transmitted at substantially lower gain than the signal as taught by Jacomb-Hood in order to functional signals that is directly connected thereby improvement high quality of signal.

Regarding Claim 20, Sharon and Barrett teach the method of claim 16 to 19, except for wherein the gain of the copy is substantially lower than that of the signal. However Jacomb-Hood teach the copy is transmitted at substantially lower gain than the signal (paragraph 42, 57, 68, 69). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Sharon and Barrett to include the copy is transmitted at substantially lower gain than the signal as taught by Jacomb-Hood in order to functional signals that is directly connected thereby improvement high quality of signal.

Regarding Claim 23, Sharon and Barrett teach A method of monitoring a property of the earth's atmosphere, comprising configuring a multi-beam satellite to transmit multiple copies of a predetermined signal in different beams thereof

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(paragraph 19, lines 5-8, paragraph 63, figures 4, 10), receiving each of said copies at corresponding (paragraph 57, figure 7) spatially diverse monitoring stations (paragraph 53), and except for deriving said property from the received copies. However Jacomb-Hood teach deriving said property from the received copies (paragraphs 9, 33, 35, 38). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Barrett and Sharon to include deriving said property from the received copies as taught by Jacomb-Hood in order to interference power ratio of signals received thereby improve quality of signal.

6. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharon et al (Patent -No: 6704543) and Barrett et al. (Patent No: 6965755) in view of Furuskar et al. (PGUB -No: 2007/0223403).

Regarding claim 24, Sharon and Barrett doesn't teach a computer program arranged to perform the method of claim 1. However Furuskar teach computer program arranged to perform the method of claim 1 (paragraph 67). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Barrett and Sharon to include computer program as taught by Furuskar in order to detect partial transmission exchange between users within the network thereby improve more customer service.

Regarding claim 25, Sharon and Barrett doesn't teach a computer program

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product incorporating a computer program according to claim 24. However

Furuskar teach computer program according to claim 24 (paragraph 67).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Barrett and Sharon to include computer program as taught by Furuskar in order to detect partial transmission exchange between users within the network thereby improve more customer service.

Regarding claim 26, Sharon and Barrett doesn't teach apparatus arranged to perform the method of claim 1 to 23. However Furuskar teach Apparatus arranged to perform the method of claim 1 (paragraph 67). Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the apparatus of Barrett and Sharon to include Apparatus arranged to perform as taught by Furuskar in order to detect partial transmission exchange between users within the network thereby improve more customer services.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Chang et al (Patent No:7257418) teach Specific subscriber acquisition method involves scanning beam to each of cell clusters sequentially, until one of cell clusters including specific subscriber is identified.

Any response to this Office Action should be **faxed** to (571) 273-8300 or **mailed to**:

Commissioner for patents
P.O.Box1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adel Y. Youssef whose telephone number is 571-270-3525. The examiner can normally be reached on Monday to Thursday 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from

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either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ADEL YOUSSEF/

Examiner, Art Unit 2618

05/21/2008

/Lana N. Le/

Acting SPE of Art Unit 2618